

**AMENDMENTS TO THE DRAWINGS**

The attached sheet(s) of drawings includes changes to Fig. 20. This sheet, which includes Fig. 20, replaces the original sheet including Fig. 20. Reference number "69" is added to Fig. 20.

Attachment: Replacement sheet

Annotated sheet showing changes

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the pending application. The Office Action dated October 18, 2006 has been received and its contents carefully reviewed. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter in claims 8-11, 22-25, 33-36, 45-48 and 55-58.

By this Amendment, the specification and drawings are amended. No new matter is entered. In addition, claims 30 and 42 have been amended. Accordingly, claims 1-59 are currently pending. Reexamination and reconsideration of the pending claims is respectfully requested.

On page 2 of the Office Action, the drawings are objected to because they fail to show "a transparent substrate, wherein the first coil array is on the transparent substrate; a first transparent insulating layer on an entire surface of the transparent substrate, wherein the second coil array is on the first transparent insulating layer; and a second transparent insulating layer on the first transparent insulating layer" and "a first transparent insulating layer on the overcoat layer, wherein the first coil array is formed between the first transparent insulating layer and the overcoat layer; and a second transparent insulating layer on the first transparent insulating layer, wherein the second coil array is formed between the first transparent insulating layer and the second transparent insulating layer."

The first feature is disclosed, for example, in Fig. 6 of the present application. In particular, referring to Fig. 6, the first coil array 31 is on the transparent substrate 30; the first transparent insulating layer 34 is on an entire surface of the transparent substrate 30; the second coil array 35 is on the first transparent insulating layer 34; and the second transparent insulating layer 38 is on the first transparent insulating layer 34. In response to the objection to the second feature, claims 30 and 42 are hereby amended. For example, Figs. 13 and 15 of the present application illustrate the recited features in claims 30 and 42. Accordingly, Applicants respectfully request that these objections to the drawings be withdrawn.

On page 3 of the Office Action, claims 7-12 and 21-27 are rejected under 35 U.S.C. § 112, second paragraph. As discussed above with respect to the objections to the drawings, the features recited in claims 7 and 21 are disclosed, for example, Fig. 6 of the present application. Accordingly, Applicants respectfully request that this rejection be withdrawn.

On page 4 of the Office Action, claims 30-36, 42-28 and 54-58 are rejected under 35 U.S.C. § 112, second paragraph. As discussed above with respect to the objections to the drawings, Applicants respectfully submit that in view of the amendments in claims 30 and 42, the rejection of claims 30-36 and 42-28 is now believed to be moot. However, Applicants respectfully submit that the feature recited in claim 54 is disclosed, for example, in Fig. 20 of the present application. In particular, the first transparent insulating layer 34 is formed on the insulating layer 69; the first coil array 31 is formed between the first transparent insulating layer 34 and the insulating layer 69; the second transparent insulating layer 38 is formed on the first transparent insulating layer; and the second coil array 35 is formed between the first transparent insulating layer 34 and the second transparent insulating layer 38.

On page 5 of the Office Action, claims 7-12, 21-27, 30-36, 42-48 and 54-58 are rejected under 35 U.S.C. § 112, first paragraph. Applicants respectfully submit that in view of the discussions above and amendments in claims 30 and 42, this rejection is now believed to be moot.

On page 6 of the Office Action, claims 1-6, 13-20, 28, 29, 40, 41 and 49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boie et al. (U.S. Patent No. 5,847,690) in view of Yoshioka (U.S. Patent No. 5,162,782). This rejection is respectfully traversed and reconsideration is requested.

Claim 1 is allowable over the cited references in that claim 1 recites a combination of elements including, for example, "...an EM sensor having first and second coil arrays formed of a transparent electrode..." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Accordingly, Applicants respectfully submit that claim 1 and claims 2-6, which depend therefrom, are allowable over the cited references.

The Examiner refers to K (310) and M (313) of Boie et al. as teaching the aforementioned features recited in claim 1. In the claimed invention, the first and second coil arrays are formed of transparent electrodes. That is the first and second coil arrays includes a transparent conductive material such as oxide indium, oxide tin, oxide zinc, indium-tin-oxide, tin-antimony-oxide, indium-zinc-oxide, or the like. See the present application at paragraph [0113]. In contrast, as best understood, K (310) and M (313) in Boie et al. are part of the sensing

electrodes 32 formed in the black matrix material 11. See Boie et al. at Col. 4, lines 48-51. Because a black matrix material blocks light to pass through it, which is quite opposite to a transparent material, Applicants respectfully submit that the combination of the cited references fail to teach or suggest the aforementioned features recited in claim 1.

Claim 13 is allowable over the cited references in that claim 13 recites a combination of elements including, for example, "... an EM sensor having first and second coil arrays formed of a transparent electrode..." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Accordingly, Applicants respectfully submit that claim 13 and claims 14-20, which depend therefrom, are allowable over the cited references.

Claim 28 is allowable over the cited references in that claim 28 recites a combination of elements including, for example, "...an EM sensor including first and second coil arrays formed of a transparent electrode on the second substrate..." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Accordingly, Applicants respectfully submit that claim 28 and claim 29, which depends therefrom, are allowable over the cited references.

Claim 40 is allowable over the cited references in that claim 40 recites a combination of elements including, for example, "...an EM sensor including first and second coil arrays formed of a transparent electrode on the color filter layer..." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Accordingly, Applicants respectfully submit that claim 40 and claims 41 and 49, which depend therefrom, are allowable over the cited references.

Claim 50 is allowable over the cited references in that claim 50 recites a combination of elements including, for example, "... an EM sensor including first and second coil arrays formed of a transparent electrode on the insulating layer..." None of the cited references, singly or in combination, teaches or suggests at least these features of the claimed invention. Accordingly, Applicants respectfully submit that claim 50 and claims 51-54 and 59, which depend therefrom, are allowable over the cited references.

On page 14 of the Office Action, claims 37, 49 and 59 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boie et al. in view of Yoshioka and Toyoshima et al. (U.S.

Patent No. 6,473,235). Because Toyoshima et al. fails to cure the deficient teachings of Boie et al. and Yoshioka as discussed above, claims 37, 49 and 59 are allowable over the cited references.

On page 15 of the Office Action, claims 38 and 52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boie et al. in view of Yoshioka and Kiguchi et al. (U.S. Patent No. 6,630,274). Because Kiguchi et al. fails to cure the deficient teachings of Boie et al. and Yoshioka as discussed above, claims 38 and 52 are allowable over the cited references.


On page 16 of the Office Action, claims 39 and 53 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Boie et al. in view of Yoshioka and Ahn et al. (U.S. Patent No. 6,284,436). Because Ahn et al. fails to cure the deficient teachings of Boie et al. and Yoshioka as discussed above, claims 39 and 53 are allowable over the cited references.

Applicants believe the application is in condition for allowance and early, favorable action is respectfully solicited. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at (202) 496-7500 to discuss the steps necessary for placing the application in condition for allowance. All correspondence should continue to be sent to the below-listed address.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. § 1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

Dated: January 18, 2007

Respectfully submitted,

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